



November 29, 2016

Ex Parte

Accepted / Filed

Ms. Marlene H. Dortch

NOV 29 2016

Secretary

Federal Communications Commission  
Office of the Secretary

Federal Communications Commission

445 12th Street, SW

Washington, DC 20554

DOCKET FILE COPY ORIGINAL

Re: *Connect America Fund – Alaska Plan*, WC Docket No. 16-271

Dear Ms. Dortch:

On May 9, 2016, the Alaska Telephone Association submitted proposed mobile performance commitments for General Communication, Inc. (“GCI”) (and other Alaska Plan signatories).<sup>1</sup> Consistent with the *Alaska Plan Order*,<sup>2</sup> GCI hereby submits an updated version of its proposed performance commitments. Specifically, GCI has updated its commitments to reflect a baseline population as of December 31, 2015, its most recent analysis of its ability to deploy and upgrade mobile service, and refinements to its allocation of population among the various technology and middle mile categories.

In addition, at the request of Wireless Telecommunications Bureau staff, GCI also submits shapefiles showing the estimated location of population within remote Alaska census blocks and a list of remote Alaska census blocks identified as eligible for Alaska Plan mobile support, ineligible for support,<sup>3</sup> or eligible for the future reverse auction.<sup>4</sup> GCI created the

<sup>1</sup> Letter from Christine O’Connor, Executive Director, Alaska Telephone Association, to Marlene Dortch, Secretary, FCC, WC Docket No. 10-90, Attach. at 18 (filed May 9, 2016).

<sup>2</sup> *Connect America Fund, Universal Service Reform – Mobility Fund, Connect America Fund – Alaska Plan*, FCC 16-115, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd. 10,139, 10,171 ¶ 97 (2016) (“*Alaska Plan Order*”) (inviting mobile carriers that had proposed performance commitments on file at the time of adoption of the *Alaska Plan Order* to update them no later than 30 days after the effective date of the order, or December 6, 2016).

<sup>3</sup> As established in the *Alaska Plan Order*, these census blocks have 4G LTE service from providers that are unsubsidized or not eligible for the delayed phase down under rule 54.307(e)(3) in Alaska to 85% or more of the population of the block as of December 31, 2014. See *id.* at 10,167 ¶ 87; 47 C.F.R. § 54.317(e).

<sup>4</sup> These are census blocks in remote Alaska in which less than 15% of the population is within any mobile carrier’s coverage area as of December 31, 2014. *Alaska Plan Order*, 31 FCC Rcd. at 10,173-74 ¶ 106.



shapefiles and the list of census blocks through an analysis of publicly available information and a few reasonable assumptions.

First, GCI obtained the census block boundaries for remote Alaska from the Census Bureau.<sup>5</sup> Onto that, GCI layered the Census Bureau's population count for each census block.<sup>6</sup> GCI labeled blocks with no reported population as uninhabited and did not analyze them further.

Next, GCI turned to road data. Because large areas of Alaska are uninhabited and because many Bush villages are unconnected to each other by highways or other roads, road locations are a key predictor of the location of population. GCI therefore overlaid TIGER road data onto the remaining census blocks. GCI included all roads in its analysis except for certain minor routes thought less likely to predict the location of a residence: unnamed roads, roads marked as "trails" and passable only by 4WD vehicles, and pedestrian trails.<sup>7</sup> GCI drew polygons around the roads extending 100 meters from each side of each road. Areas outside of the polygons were assumed to be uninhabited.

GCI then overlaid General Land Status data available from the State of Alaska.<sup>8</sup> The State categorizes land by its ownership. For example, land that is set aside as state or national parkland is identified as such, and similarly for land that is owned by private individuals or Native populations. GCI eliminated any areas of its polygons that were not characterized as privately, Natively, or municipally owned to reflect that the population is most likely to live in these areas rather than other areas, such as national wildlife refuges or state parks.

At this point, if any census block had population but had been completely eliminated through the road or General Land Status analyses, the entire census block was restored rather than eliminated. GCI then evenly distributed the population of each census block within the portion of each census block remaining.

Identifying the census blocks eligible for Alaska Plan support and unserved blocks for the remote auction then became a matter of comparing the distributed population with the service areas of mobile providers. First, GCI overlaid the Form 477 shapefiles showing 4G LTE service as of December 31, 2014, for each mobile carrier that is unsubsidized or ineligible for the delayed phase down and that offers that technology in remote Alaska. Any census block in which 85 percent or more of the distributed population was within the 4G LTE service area was

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<sup>5</sup> U.S. Census Bureau, Geography, 2010 Census – Census Block Maps, <http://www.census.gov/geo/maps-data/maps/block/2010/>.

<sup>6</sup> U.S. Census Bureau, Geography, TIGER/Line<sup>®</sup> with Selected Demographic and Economic Data, <http://www.census.gov/geo/maps-data/data/tiger-data.html> (2010 Census Population and Housing Unit Counts – Blocks).

<sup>7</sup> U.S. Census Bureau, Geography, TIGER/Line<sup>®</sup> Shapefiles and TIGER/Line<sup>®</sup> Files, <http://www.census.gov/geo/maps-data/data/tiger-line.html>.

<sup>8</sup> Alaska Dep't of Natural Resources, Spatial Datasources, General Land Status, <http://www.asgdc.state.ak.us/>.

marked as ineligible for Alaska Plan mobile support. Second, GCI overlaid all Form 477 shapefiles (for all technologies) of all mobile providers offering mobile service in remote Alaska. Any census block where less than 15 percent of the distributed population fell within any coverage area was identified as eligible for the reverse auction for support to serve unserved areas.

GCI provides this information to the Bureau to demonstrate how it identified the census blocks eligible for Alaska Plan support and to assist the Bureau in its ongoing assessment of the state of mobile deployment in remote Alaska. GCI does not consider the locations on the shapefiles to limit where it or any other Alaska Plan participant may deploy or upgrade locations in fulfillment of its individual performance commitments. Consistent with the *Alaska Plan Order*, Alaska Plan support must be used to serve population within eligible census blocks, but the *Order* does not otherwise limit its use to certain locations within those blocks.<sup>9</sup>

Please do not hesitate to contact me if you have any questions regarding this matter.

Sincerely,



Julie A. Veach  
*Counsel to General Communication, Inc.*

Attachs.

cc: Jim Schlichting  
Paroma Sanyal (shapefiles via USB)  
Joel Taubenblatt  
Peter Trachtenberg  
Gary Michaels (shapefiles via USB)  
Matt Warner (shapefiles via USB)

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<sup>9</sup> See 47 C.F.R. § 54.317(e) (“Frozen support allocated through the Alaska Plan may only be used to provide mobile voice and mobile broadband service in those census blocks in remote areas of Alaska, as defined in §54.307(e)(3)(i), that did not, as of December 31, 2014, receive 4G LTE service directly from providers that were either unsubsidized or ineligible to claim the delayed phase down under §54.307(e)(3) and covering, in the aggregate, at least 85 percent of the population of the block.”). In addition, “providers are entitled to use support to construct the facilities required for them to meet their deployment obligations, including using support for improved backhaul and middle mile.” Upgrades or deployment of middle mile that is even outside a participant’s service area are acceptable so long as the upgrades or deployment are “necessary for service in that carrier’s service area.” *Alaska Plan Order*, 31 FCC Rcd at 10,163 ¶ 74, 10,165 ¶ 81 & n.166.

Middle Mile	Technology Of Transmission (477 Code)	Note 1		Note 2		Note 3		10 Year % Population Served	Minimum Expected Download/ Upload Speeds at Edge	Spectrum Codes (477 Code)
		Population 2010 Census	Population Served 12/31/15	% Base Population Served 12/31/15	5 Year Base Population Served	5 Year % Total Population Served	10 Year Total Base Population Served			
Fiber	83 (LTE)		13,455	21%	32,079	50%	64,158	100%	10/1 Mbps	90, 91, 93, 94
	80, 81, 82 (3G)	64,158	43,882	68%	25,258	39%	-	0%	2/05 Mbps	90, 91, 93, 94
	85, 86 (Voice/2G)		6,821	11%	6,821	11%	-	0%	<2 Mbps	90, 91, 93, 94
<b>Fiber Total</b>			<b>64,158</b>	<b>100%</b>	<b>64,158</b>	<b>100%</b>	<b>64,158</b>	<b>100%</b>		
Microwave	83 (LTE)		125	0%	125	0%	42,095	83%	2/8 Mbps	90, 91, 93, 94
	80, 81, 82 (3G)	50,717	29,764	59%	41,970	83%	8,622	17%	2/05 Mbps	90, 91, 93, 94
	85, 86 (Voice/2G)		20,828	41%	8,622	17%	-	0%	<2 Mbps	90, 91, 93, 94
<b>Microwave Total</b>			<b>50,717</b>	<b>100%</b>	<b>50,717</b>	<b>100%</b>	<b>50,717</b>	<b>100%</b>		
Satellite	83 (LTE)		-	0%	12,363	50%	12,363	50%	1/256 Mbps	90, 91, 93, 94
	80, 81, 82 (3G)	24,482	-	0%	-	0%	-	0%	2/05 Mbps	90, 91, 93, 94
	85, 86 (Voice/2G)		24,482	100%	12,119	50%	12,119	50%	<2 Mbps	90, 91, 93, 94
<b>Satellite Total</b>			<b>24,482</b>	<b>100%</b>	<b>24,482</b>	<b>100%</b>	<b>24,482</b>	<b>100%</b>		
Total	83 (LTE)		13,580	10%	44,567	32%	118,616	85%		
Total	80, 81, 82 (3G)		73,646	53%	67,228	48%	8,622	6%		
Total	85, 86 (Voice/2G)		52,131	37%	27,562	20%	12,119	9%		
<b>Grand Total</b>		<b>139,357</b>	<b>139,357</b>	<b>100%</b>	<b>139,357</b>	<b>100%</b>	<b>139,357</b>	<b>100%</b>		

Note 1: Population per 2010 Census in service area. Excludes population served by AT&amp;T and/or Verizon at 4G LTE using their infrastructure.

Note 2: Percentage of population served at benchmark speeds as of 12/31/15.

Note 3: Year 1 is 2017.



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Attachment A

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